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A N
E S S A Y
ON THE VARIOUS
CAUSES AND EFFECTS
OF THE
DISTORTED SPINE.

[PRICE TWO SHILLINGS.]

A N
E S S A Y
ON THE VARIOUS
CAUSES AND EFFECTS
OF THE
DISTORTED SPINE;

ON THE
Improper Methods usually practised to
remove that Distortion;

In which that recommended by Mr. *Pott* is considered,
and the bad Effects of *Vacher's* (commonly called
Jones's) SPINAL MACHINE are pointed out:

With the Description of an Instrument that is better
calculated to remove those Distortions than any
hitherto made use of, and that will not be productive
of the pernicious Consequences that have been caused
by most of the other Machines.

TO WHICH ARE ADDED,
SOME OBSERVATIONS
ON THE
TREATMENT OF RUPTURES;

Intended to shew the Impracticability of curing that
Disorder by any other means than the use of proper
Trusses, and the superior Utility of the improved
Elastic Trusses with flexible Pads,

MADE BY
T. SHELDRAKE, JUN.

L O N D O N:
Printed for C. DILLY, in the Poultry; T. LEWIS, Russell
Street, Covent Garden, and FAULDER in New Bond Street.

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IN GRATITUDE
FOR THE KNOWLEDGE I ACQUIRED
FROM THE INSTRUCTIONS
OF THE
GREATEST ANATOMIST OF HIS AGE,
WHO APPROVED OF THIS WORK,
AND (HAD HE LIVED)
WOULD HAVE PERMITTED IT TO BE INSCRIBED TO HIM
THE FOLLOWING PAGES
(HOWEVER UNWORTHY)
ARE DEDICATED TO THE MEMORY OF
DR. WILLIAM HUNTER, F. R. S. &c.
BY THE AUTHOR.

P R E F A C E.

THE greater part of Truss-makers, as well as those who profess to remove the deformities of children, have usually been mere mechanics; people of this description can never do all that is necessary for patients who require their assistance, from very obvious reasons; they must therefore be guided by the directions of professional men; but the surgeon can seldom direct such people with success, because their want of knowledge renders them incapable of comprehending his instructions; patients have always felt the inconveniencies, sometimes the fatal consequences of this defective state of the profession, which can only be obviated by uniting in the same person, mechanical skill to construct the necessary machines in the best manner, and anatomical

A 2 know-

knowledge sufficient to adapt and apply them to the peculiarities of each case.

THOUGH a certain degree of anatomical knowledge is requisite in this profession, a man may be fully competent to it, without being able to practice surgery ; nor should the two professions be confounded with each other, on this account, for the same reason that no two of the learned professions can be thought the same, because some knowledge of the dead languages is necessary to each.

IF we consider that the united efforts of all those who have studied surgery, have not yet brought that art to perfection, it will be evident, that any man who wishes to arrive at eminence in it, should dedicate all his time to that alone ; while the
man

man who engages in the other profession, must be satisfied with a certain portion of liberal knowledge, and give the rest of his time to the practical part of it; who ever therefore is perfectly master of the one, must be deficient in the other; and indeed it has always happened that those who pretended to practice both, have, when examined by men in each profession, been found incapable of either.

THE difference between these professions is so evident, that no man who is qualified, or desirous to arrive at eminence in the latter, would attempt to encroach upon the former profession; but the major part of those who have claimed the public attention, by pretending to be above the mere mechanic have adopted the title
and

and character of surgeon ; a title, which if considered as it relates to them, is synonymous to that of quack, because it is foreign to their profession, and only assumed to support an ideal importance, which their conduct has uniformly proved to be destitute of foundation.

It was with a wish to avoid each of these extremes, and a determination not to encroach upon the surgical profession, that I applied myself to the study of mine ; the result of part of that study I now make public ; it is for my readers to determine how far I have succeeded in the attempt. I have searched for truth, and am not conscious of having deviated from it ; should men of more knowledge, and greater experience prove my ideas to be erroneous, my future endeavours will

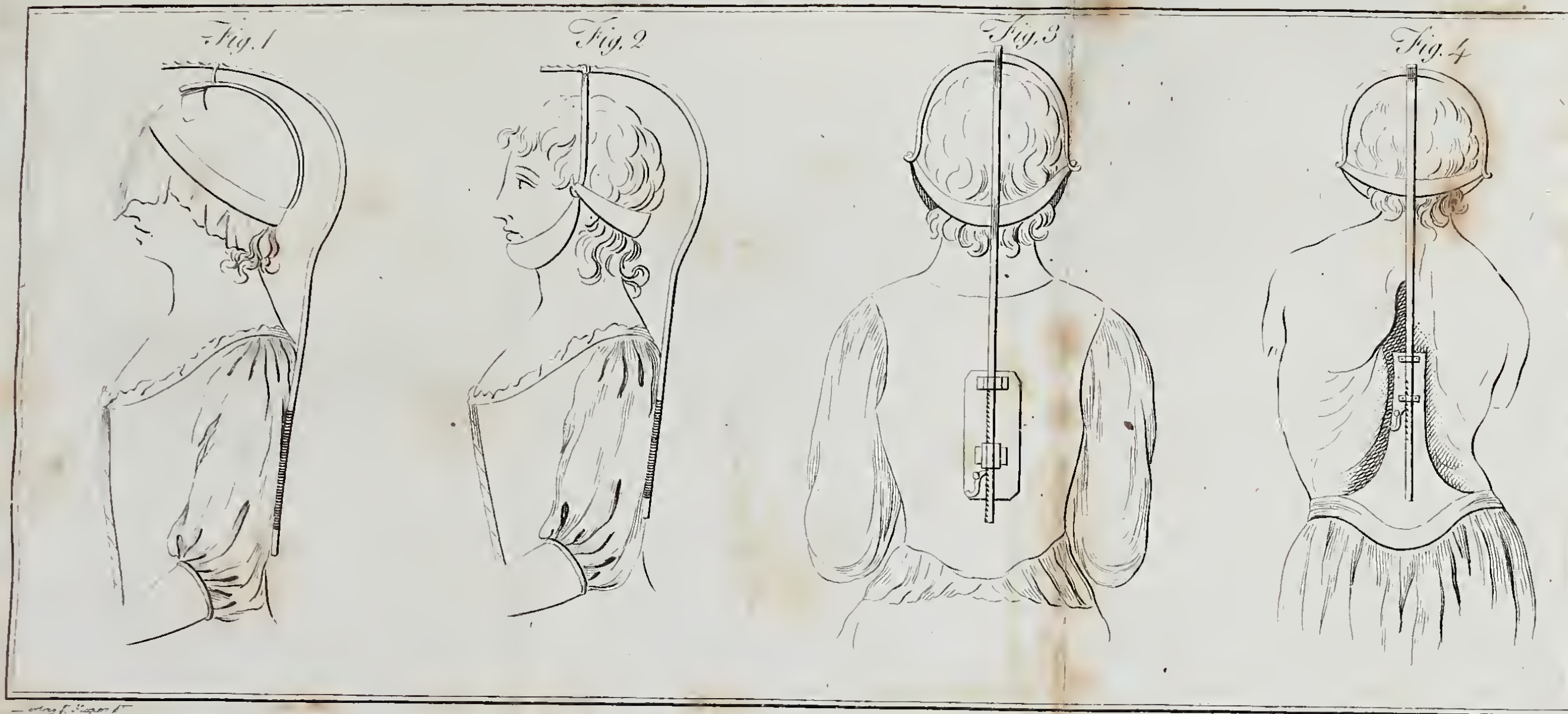
will be exerted to correct and improve them; if right, to carry them nearer perfection; but whatever may be the general decision upon this, or any other production of mine, I shall submit to it with pleasure, from a conviction that the sentence of the candid will always be just.

No. 84, St. Martin's Lane.

C O N-

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- Fig. 1.st Side view of Messrs. Vacher's Machine, as described in the *Memoires de l'Academie Royale de Chirurgie, à Paris*.
 Fig. 2.nd Side view of the same Instrument with the small swing, as it has been used in London, instead of the Cap, fillet, &c.
 Fig. 3.rd Back view of the same Machine.
 Fig. 4.th Back view of a distorted Trunk in the improv'd Machine.

E S S A Y, &

ALTHOUGH the deformities of children are so frequent, ^{they might in} ~~nothing~~ ^{general} would be more easily prevented, if those who have the care of them would treat them properly, and follow the dictates of reason, instead of complying with absurdities that can only be excused, because custom has made them general.

To remove these deformities is an object of great consequence, as not only their appearance is disagreeable, but by impeding the functions of the viscera, they will in time destroy that balance of the constitution which is so necessary to health and longevity.

LONG experience has convinced us, that by the proper use of various instruments we may remove these deformities; but the misfortune has been, that the application of instruments for this purpose has generally been left to ignorant mechanics, who, by using the same machine on very different occasions, have sometimes, I fear too often, produced the worst consequences.

SINCE a gentleman of eminence in his profession has published a successful method of treating a particular curvature of the spine, those who read his works but inattentively have applied his objections to the use of instruments on that occasion, to the use of them in every case; Mr. Pott censures the *indiscriminate and very improper use that is daily made of them*. Yet those who have deformed children generally think themselves competent judges of the proper methods to remove those deformities, and purchase machines which they have seen used in cases
apparently

apparently similar: the makers of these instruments consider them as an article of trade, they sell them, and generally are ignorant of the consequences of misapplying them; we cannot therefore be surpris'd if from want of judgment on one side, and ignorance on the other, these instruments should be productive of serious injury: like all other attempts to cure, they will, if improperly applied, do considerable mischief, and when conducted with judgment alone have their desired effect.

SOME of those instruments, particularly that of Mons. Vacher, commonly called Jones's Spinal Machine, must, from the defects in their construction, and the principles upon which they act, have a bad effect, if they are capable of producing any: that machine was forced into practice before its principles of action and probable consequences were considered; it was generally adopted, till it was found not to succeed;

as however it was not wholly incapable of improvement, I adopted the principle of Monf. Vacher, endeavoured to obviate the defects in its construction, by rendering its action simple and more applicable to the nature of the deformity, so that its use can never be attended with any pernicious consequences; and if it is judiciously applied, in proper cases, it must have the most salutary effects.

THAT curvature of the spine, which accompanies a paralysis of the lower extremities, was till lately confounded with those distortions that arise from very different causes; it was treated in the same manner, but that mode of treatment was always unsuccessful: Mr. Pott first published an account of the cause of that disorder, and a ^{successful} method of treating it; he says, however, the curvature and its consequent deformity must always remain; but I hope to shew that there is reason to suppose, by applying the above-mentioned machine,

machine, and persevering in the use of it; that this curvature of the spine, and every degree of deformity in consequence of it, may be entirely removed, or at least considerably diminished.

THE business of this Essay will therefore be to point out the various causes of these deformities, the appearances that distinguish them from each other, the defects in the methods of treating them, the improvements that I have made in the instruments necessary for this purpose, and lastly, I shall offer those arguments that induce me to think, contrary to the opinion of Mr. Pott, that every degree of deformity may be, if not removed, at least in a great measure alleviated.

*Of the various Causes and different Appearances
of the DISTORTED SPINE.*

PERSONS of every age are subject to deformities of the spine, but they arise from
various

various causes, and their effects are very different. It is of the utmost importance to distinguish them, for if they are mistaken for each other, and improperly treated in consequence of that mistake, the effect will always be pernicious, sometimes *fatal*.

IN infants and very young children, they are generally the effect of constitutional weakness; in this case, the spine wanting strength to support the weight of the parts above, sinks under the pressure, and generally bends directly outwards, as we see in those who are become weak through age.

IN children, from the age of five or six years, till they arrive at maturity, the deformity is generally caused by the indulgence of many idle habits, which, however trifling they may appear, are in reality of the utmost consequence: sitting awry at their various employments, leaning upon elbow chairs, tables, &c. standing continually upon one leg
more

more than the other, and many similar practices, by destroying that equilibrium which exists between all the parts of the body, will, at the time children are growing, occasion the greatest deformity.

DEFORMITIES are also frequently caused at this time of life, by the use of various parts of dress, particularly stiff stays ; these are put on to *improve* the shape, but they always have a contrary effect, or none at all : if they are laced tight, they must make a disagreeable pressure on some of the bones of the thorax, and by pressing improperly upon those parts, force them out of their relative situation ; if they are laced tight in the lower parts, they must compress the viscera, and in time produce very bad consequences ; and if they are not laced tight, they must be disagreeable to the wearer and answer no purpose : I have seen some women who had never worn stays, and the only difference to be perceived between them and those who had constantly worn them

them

them was, that they were not only void of deformity, but better shaped than the rest of the sex.

WE shall be still more convinced of this, if we consider those women who never attempt to improve their shapes; travellers have frequently remarked, that a deformed person is seldom seen among those people who are nearest a state of nature; and even among the lower classes of our own women we rarely meet with instances of deformity: it is only by using so many improper methods in hopes of improving the shapes of girls that so many of them become crooked; whereas the persons of boys, being left entirely to nature, are seldom seen either deformed or even disproportioned.

I BELIEVE that every attempt to *improve* the natural shape by art will be found to have a contrary effect; because when there is no positive defect, if those methods have
any

any power at all, they must oblige the parts to deviate from their natural situation, destroy the symmetry that existed between all parts of the body, and consequently occasion deformity : but where there is a positive defect, where that symmetry has been destroyed by accident, if the patient is not arrived at maturity and the deformity become permanent, we may, by proper treatment, restore the parts to their natural situation, and obviate the defect ; and this is all that art can effect.

THE variety of deformities arising from these causes is so great, that 'tis impossible to be particular in describing them all : the spine will be distorted into every shape ; when viewed behind it will have the appearance of a large S ; it will sometimes be so distorted, that the spinal processes will form a semi-spiral line instead of a strait one : in consequence of the distortion of the spine, the ribs will be nearer to each other on one side, and

at a greater distance on the other than when the body is in its natural state ; on one side they will come considerably more forward, and on the other be more prominent behind than they should be ; there will be a difference in the height of the shoulders, and in proportion as the spine deviates from its perpendicular situation, the hip on one side will appear more prominent than on the other : yet, however great the deformity may be, if it is from negligence only, it may be entirely removed, provided the proper means are used before the patient arrives at maturity : if neglected till that period it is irremediable ; the patient must not only bear with the disagreeable appearance of the deformity, but if the thorax is much distorted, the lungs will be compressed, the action of the other viscera obstructed, and by means of that obstruction the constitution will be gradually destroyed in a few years, if a consumption is not immediately produced by it.

THOSE

THOSE who are not well acquainted with the subject may imagine, that a perfect removal of the deformity is not so certain as I have represented it to be ; but they will cease to think so, if they reflect, that this distortion is not occasioned by any disease, the form of each particular bone is not altered ; the bones of the trunk are, by the means already described, displaced from their natural and relative situation, this occasions the deformity : if therefore the patient ceases to indulge those habits, we may, before he arrives at maturity, restore every part to its natural state, and of course no deformity will remain.

For this purpose we need only observe the operations of nature, to imitate and assist them when they are deficient in power : in cases of distortion of this kind, if the patient by proper attention removes the cause of it, they cease to grow worse, they even become something better without assistance ; but nature has not sufficient power to counteract

the distortion without assistance ; if therefore our efforts are directed to encrease the power nature exerts on this occasion, we shall generally be successful ; but if by injudicious treatment we counteract the operations of nature, we shall either effect nothing or occasion greater deformity than that we attempt to remove.

THERE is another distortion of the spine which is found in adults as well as children : it differs materially from those already described in its appearances, and is much more dreadful in its effects.

It is caused by a disease which destroys part, sometimes the whole, of one or more vertebræ, produces a curvature in the spine, and great deformity of the body in consequence of that curvature ; it deprives the patient of the use of the lower extremities, and soon brings on certain death, if not prevented by proper surgical treatment,

It

It is not easily distinguished in infants from that kind of deformity that is the effect of weakness, because, as they never have used their legs, the curvature is its only symptom, and that nearly resembles the distortion that is caused by debility : but in those children who have already walked it is easily known, because at the time the curve first appears, they are wearied by very little exercise, their legs become gradually weaker, they can walk but a few paces without resting, and at length they become incapable of motion.

In some cases, the curve is considerable before the limbs are much affected ; in others, the patient is almost entirely deprived of the use of his legs before the curvature of the spine is attended to ; but in every case of this kind, the appearance of the curve and other symptoms are so different from those of the other distortions of the spine, that an attentive observer can seldom, if ever, mistake them

them. The progress of this disease in adults is in every respect the same as in those who have not arrived at maturity.

WHILE the real cause of this curvature and its attendant circumstances was unknown, it was treated as a common distortion; as that mode of treatment was calculated to remove what did not exist, it was always unsuccessful, and generally hastened the dissolution of the patient: Mr. Pott was the first who published an account of the real cause of this disorder, and brought into practice a method of treating it that has been so far successful as to remove the disease, and prevent its fatal effects; but as he leaves the patient with all the deformity occasioned by the disease, the cure is still imperfect: I shall hereafter state the reasons that induce me to think it is possible to remove every degree of deformity occasioned by this disease, but at present confine myself to the other distortions which are occasioned by the deviation of
the

the bones of the trunk from their natural and relative situation, and which may be entirely removed by restoring those parts to that situation.

IF we examine the structure of the skeleton we shall see, that the bones of the legs and thighs are of equal length, that the pelvis is composed of several bones which are so firmly united, that they are incapable of alteration in point of form or situation, except in very young children, or when the bones are in a diseased state; therefore every deformity of this kind must be from the pelvis upwards: the spine is composed of several vertebræ, which are firmly united, but at the same time capable of considerable motion; the ribs are attached by pairs to their particular vertebræ, they have no motion independent of those vertebræ, and they are exactly parallel to each other, while the spine is in its natural situation: this, if I may use the expression, is the foundation of that uni-

xvde Errata formity

formity which naturally exists between all parts of the body, and while that foundation remains unaltered, no deformity can take place ; but if the figure of the spine is altered, those parts that are immediately connected with it, will preserve their situation relative to the vertebræ they are attached to, and deviate proportionably from their natural situation with regard to each other : thus a distortion of the spine, by altering the situation of the ribs, will deform the whole body ; to remove therefore, that deformity, all our endeavours must be directed to restore the spine to its proper figure.

To effect this, our endeavours must be exerted upon the spine alone ; every part of the trunk must be left at liberty ; for if we put the least restraint upon the body in its deformed state, at the same time that we endeavour to straiten the spine, we shall either effect nothing, or by retaining the body in that state while the spine is extended, we shall

force

force those parts that are in contact with the vertebræ out of their natural situation ; thus, supposing the spine could be made strait under these circumstances, each pair of ribs, instead of being parallel to each other, would be higher on one side, and lower on the other than they naturally were : this deformity will be as great, and its consequences as bad as the original one, and it will moreover be permanent, it will be irremediable.

THERE is another circumstance to be considered upon this occasion ; while the spine is erect, it is able to support the weight of every part above it, but when it is much curved it cannot do so ; its strength decreases as it deviates from its perpendicular situation ; and the pressure of the head, and other parts above the curve, will encrease that deviation : therefore any means that can be used to remove this deformity with a probability of success, must take the weight of the head from the spine, it must gradually and continually

D

nually

nually extend the spine till it becomes perfectly strait, and at the same time leave every part connected with it perfectly at liberty: if they fail in any of these points, they will generally have pernicious consequences, or at least be ineffectual.

I SHALL now proceed to enquire whether the methods hitherto used are calculated to have the above-mentioned effect.

On the Machines that have been used to remedy the DISTORTED SPINE, and their Defects.

THE common neck-swing has been most used for this purpose: it is generally fixed to the ceiling, the patient is suspended in it by the head as long as they can bear it, which is seldom longer than half an hour; this may be repeated two or three times a day.

THE action of this machine is simple; it is exerted upon the spine alone, and would
always

always be successful, if it could be constantly used : but this cannot be ; as it is fixed to one place the patient must of course be confined there, and if she could bear to be constantly in it, she must neglect every other employment ; for these reasons it is inconvenient, and if the spine is much distorted, the pressure of the parts above the curve during the time she is not in the swing, will greatly retard if not totally counteract the benefit she may receive from the use of it.

It is always a desirable object to remove a deformity of this nature as soon as possible, and patients are sometimes so situated, that if it is not speedily effected, there can be no probability of a cure ; the above-mentioned defects then, are material objections to the use of the swing ; to obviate those objections and effect a cure as soon as possible, a machine must be constructed to act upon the spine in the same manner as the swing, but it must be made portable, and fixed upon the body

so that the patients may wear it constantly, without impediment to their exercise or other employment ; and it must likewise be so contrived that we may encrease or diminish its power, as the circumstances of the case may render it necessary.

A MACHINE has lately been much used that is said to have the above-mentioned properties, but notwithstanding its appearance is in its favor, it is far from having that effect : numbers of them have been made by a Mr. Jones, who calls himself the inventor of them ; it is needless for me to examine the foundation of his claim to the invention, as I find the same machine described in the *Memoires de l'Académie Royale de Chirurgie à Paris* ; it is there ascribed to a Mons. Vacher, and has been made public near thirty years, I shall, therefore enquire into the structure and pretended effects of this machine, as I find it described in that work.

MONS.

MONS. VACHER says, “ My principal ob-
 “ ject is to counteract the distortion, by a
 “ gradual and constant extention of the spine;
 “ the methods hitherto used have been inef-
 “ fectual, but those I now present to the
 “ Academy will always be successful, if
 “ used with proper caution, and in proper
 “ cases.

“ To prove this I must observe, that a
 “ slender stick will support a considerable
 “ weight when erect, but when it is bent,
 “ sinks under it immediately; it is the same
 “ with the spine; when once its natural
 “ form is altered, whatever may be the
 “ cause of that alteration, the weight of the
 “ head and other parts above the curve will,
 “ by depressing it, encrease the deformity,
 “ particularly in young children: to remedy
 “ this evil, we must restore the vertebræ to
 “ their natural situation, and keep them so
 “ by supporting the spine, till it has acquired
 “ strength

“ strength to resist a force that would otherwise increase the curvature.”

AFTER mentioning various other methods used to remedy this distortion, and the defects of those methods, he proceeds to describe his own ; “ which * consists of a pair of strong whale-bone stays, made to lace before, instead of behind ; a small brass or iron plate is to be fixed on the middle of the back ; through two staples fixed to this plate what he calls the *arbre suspensoire* is to pass ; this is a long piece of steel that passes from the forehead along the back of the head through these staples and down to the bottom of the back ; the upper part is to be bound to the head by means of a

* *Monf. Vacher* has employed several pages in describing his machine ; it was his intention to give minute instructions to the workman ; it is therefore unnecessary for me to translate the whole passage ; a concise account of it is sufficient, as it is now so well known that almost every person has seen it ; those who have not I refer to the annexed plate, fig. 1.

“ cap

“ cap and bandage, which he describes very
 “ minutely*. When this apparatus is to be
 “ used, the upper part is to be fastened to the
 “ head, the stays are to be laced as tight as
 “ possible upon the body, the *arbre suspen-*
 “ *soire* is then to be gradually raised, and a
 “ little spring made to fall into some notches
 “ in the lower parts will prevent its return.

By this means, Mr. Vacher tells us, the
 spine will be extended till it becomes quite
 straight; he concludes saying, “ The advan-
 “ tages of this machine are manifest; it extends
 “ to the spine as much and for as long time
 “ as is necessary; the patient may take exer-
 “ cise, or follow any employment; it does
 “ not prevent children from dancing, draw-
 “ ing, or writing; there are many who are
 “ obliged to wear them in bed nor does it
 “ incommode them in the least.”

* It is needless to transcribe this part of his descrip-
 tion, as that part of his invention is now disused. See
 fig. 2.

MONS.^r VACHER congratulated himself upon the great success of his machine ; it is not for me to question his veracity ; but I am authorised by the experience of several gentlemen of the faculty, as well as by those cases that have come under my own observation, to say, that it has been unsuccessful in the majority of those cases it has been applied to in London, and in many highly pernicious.

THOSE who have suffered by its defects, or been witnesses to its bad consequences, have attributed its want of success to various causes, particularly the ignorance of the person who superintended the use of it ; these objections may be well founded ; with those who are acquainted with the circumstances that first brought it into practice in London, they will have considerable weight, but it will be needless for me to bring them to support my arguments, as the pernicious consequences of
this

this machine may be sufficiently accounted for by the defects in its construction.

It will be evident, that this machine is calculated to encrease the distortion, or at least retain the body in its deformed state, if the above account of the causes and effects of the distortion is adverted to : deformities of this kind are frequently caused only by wearing tight stays ; a pair of strong stays, laced as tight as possible upon the body, is the very basis of this machine : when the spine is distorted, the vertebræ have departed from their relative situation ; the bones of the thorax have preserved their situation relative to the particular vertebræ they are attached to, but have departed from their natural situation relative to each other ; this alone occasions the deformity.

In order to remove this deformity, a power must be exerted upon the spine alone, to restore the vertebræ to their natural and rela-

tive situation ; if this is done without laying any restraint upon the other parts, the deformity will be entirely obliterated : to make Monf. Vacher's machine have any effect, the stays must be laced tight, this will retain the body in its deformed state, the machine is then to be raised to extend the spine ; it is evident then, that it possesses a two-fold action ; to produce any effect they must both be exerted ; if both are exerted, they must counteract each other, and occasion bad consequences ; the vertebræ may be restored to their relative situation, but the ribs will be distorted from their situation relative to the vertebræ, because the pressure of the stays retains the whole mass in its original deformed state.

Thus it will either produce no effect at all, or it will remedy a curable deformity, by substituting one in its stead that will be permanent, that will be irremediable ; this is not a matter of speculation, it has been the case

case several times, and many may be found who are melancholy proofs of the bad effects of this machine ; but it will be needless for me to mention particulars, as I think every one who is acquainted with the structure of the body must see that this will generally be the effect produced by it.

It cannot even extend to the spine effectually ; because the support it is said to have from the pelvis is by no means so permanent as it is supposed to be : it is well known the strongest whalebone easily bends, and is rendered still more pliable by heat ; when the stays are laced on, they are soon moulded to the exact shape of the body by the warmth they contract by being in contact with it ; therefore, when the machine is raised they bend under the pressure instead of supporting and extending the spine ; thus while the patient and the operator imagine they are making great progress towards a cure, because the machine is

considerably raised, they are in fact increasing the deformity.

MONS. VACHER seemed conscious of this defect, as he directed his machine to be put upon turn-stays, and ordered them to be turned at least every other day, that they might not conform to the shape of the body instead of restoring that to its natural state : I leave the intelligent reader to determine whether that expedient will have the desired effect.

I SHOULD possibly never have examined this machine so attentively, if I had not frequently been told by patients, as well as their friends, that they often became worse, instead of better, by the use of it : it seemed improbable that any thing used as a remedy should so often have consequences, so opposite to its intention ; I therefore could not credit the *assertion* ; but after an attentive enquiry into the structure of the parts, and the ac-
tion

tion of the machine, I am convinced that these frequently have been, and generally will be its effects; and therefore the use of it is very injurious instead of beneficial to the patient.

THERE is another objection made to this instrument, which is certainly founded in reason, though I have never known it produce the effect, said, by those who make that objection, to be the consequence of using it: it is, that by the pressure and tight lacing of the stays, the pelvis may be distorted, and the most dreadful consequences to females may ensue from that distortion: if an uniform pressure was effected upon all parts of the pelvis, this could not take place; but if it is considered that in using this machine, a considerable pressure will be made only upon the superior and projecting parts of the ilium on both sides, that this pressure must continually be repeated and encreased, it will appear probable that if this machine is used before the
bones

bones of the pelvis are perfect and firmly united, the above effects may be the consequence of using it.

A GENTLEMAN of eminence in the faculty has told me, he never recommends this machine, because in two cases he has seen the lumbar abscess caused by the use of it: this objection does not appear to me to be well founded; because, if the pressure of the machine would *cause* the lumbar abscess, it is probable that in the number of cases it has been applied to, it would have produced that effect in more than two instances. Mr. Pott says that curvature he treats of, is the effect of a scrophulous constitution, that the lumbar and psoas abscesses are frequently produced from the same cause, “ and therefore when “ we use these terms, we should be understood “ to mean only a description of the course “ which such matter has pursued in its way “ outward, or the place where it makes its “ appearance externally; the terms really “ meaning

“ meaning nothing more, nor conveying any
 “ precise idea of the nature, seat, or origin of
 “ a distemper subject to great variety, and
 “ from which variety its very different symp-
 “ toms and events, in different subjects, can
 “ alone be accounted for.” He likewise says
 that “ contrary to the general opinion, a ca-
 “ ries of the spine is more frequently a cause
 “ than an effect of these abscesses.” It is
 therefore not probable that the lumbar ab-
 scess in the two abovementioned cases was oc-
 casioned by the pressure of the machine.

*A Description of the improved Machine and its
 Advantages.*

A MACHINE that will have the effect
 ascribed to that of Mons. Vacher would be a
 most desirable acquisition, as it would remove
 every deformity of the body more effectually
 than

than any method that has been practised before ; but his machine is very defective, I have shewn that it will not only be unsuccessful, but frequently have pernicious consequences ; it now remains for me to describe the improvements that will obviate those defects, and make it produce the desired effect.

For this purpose, the machine must take the weight of every superior part from the spine ; it must extend the spine, and at the same time leave every part between the pelvis and the head entirely at liberty : the machine, therefore, is to have a firm hold of the head, a certain support from the pelvis, and, when fixed to those parts, it must be capable of an extension till the spine is become straight, and all those parts which are attached to it are restored to their natural and relative situation.

To effect this, I shall retain all the upper part of the machine with the swing, see fig. 2. but instead of fixing it upon stays, which must
always

always encrease the deformity, the staples through which the upper part of the machine is to pass, must be fastened to a steel plate, that descends from nearly the middle of the back, to the pelvis, which it must fit exactly, and be put on in such a manner that it will never alter its situation: by this means we have a firm hold of the head and pelvis, by extending the machine the spine will be gradually straitened, and as there is nothing to hinder the other parts from preserving their situation, relative to the vertebræ they are attached to, the extension of the spine will effectually remove every degree of deformity in the body.

THE last mentioned part of the machine must be made to rest upon the pelvis from the superior and anterior parts of the ilium on one side, round the posterior part of the pelvis, to the superior and anterior parts of the ilium on the other, and fastened securely before; † by

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† It may be objected that I have not described this part of the machine sufficiently to enable a workman to make

one

its being made to the shape of the pelvis it presses equally on all parts, and the pelvis will bear the pressure necessary to support the spine, without yielding to it: this machine will be extended by slower degrees than Vacher's, but every time it is extended we shall be certain of having made some progress towards a cure, which is not the case with the other.

As the distortion of the spine is in no two cases exactly the same, the form of this part of the machine must necessarily be different in every

one from it:—I have purposely avoided doing so, because I have found that a common workman could not make it properly with all the instructions I could give him; written directions cannot be so explicit as verbal ones: if such a description was given the ignorant part of the profession would attempt to make them; they would not succeed, but by making them improperly and applying them in the same manner, they would produce bad consequences, which might be attributed to the machine, instead of the imperfect method of making and applying it: therefore I have sufficiently explained the principles upon which it acts, the plate will give a better idea of the machine, but I can only be answerable for the effect of such as are made, as well as applied by myself.

every case, because it must be made to the exact shape of the pelvis; it must be so constructed that it may support the upper parts, and at the same time never come in contact with the distorted spine: in some cases therefore it may be made upright like fig. 4; in others, when the curve is directly outwards, it must be made double to give the necessary support, and avoid pressure upon the spine: in short, it is impossible to describe every variation that will be necessary in this part of the machine, as every case is different from the rest, it is only by seeing those cases that the machines can be adapted to their peculiarities.

THIS machine is to appearance more complex, but its action is more simple than that of Vacher, and it will be more certain, as well as more beneficial in its operation: its superiority is great in many respects; it extends the spine more effectually, though by slower degrees, than Vacher's, and as it forms

no improper pressure upon any part connected with the spine, the deformity must be removed in consequence of that extension; or, should it prove ineffectual in some cases, the patients will be no worse when they lay it aside, than when they began to use it; the consequence of using Vacher's machine has often been very different.

THERE is but one objection that can be made, with the appearance of reason, to the use of this machine, which is the danger of distorting the pelvis; this seems to me to be groundless, because such distortion can only be caused by an unequal pressure on the prominent parts of the pelvis, before the bones which compose it are firmly united: that part of the improved machine which is to be fixed upon the pelvis, must be made to fit it exactly; the materials of which it is made are incapable of alteration in point of form; for this reason, when properly constructed, it will be a counterpart to the pelvis, its pressure will be

equal

equal upon every part, if therefore that pressure will distort the pelvis, it cannot be by altering the relative situation of the bones which compose it, but it must force the whole out of its natural situation ; an event that will not often take place, if it ever does,

After all that can be said upon this subject, the distortion of the pelvis by these machines, seems to be, fortunately for patients, a subject of speculation, rather than matter of fact : it is common among those who are deformed in consequence of disease, or softness in the bones ; it may be produced by the pressure of these instruments, if they were applied to very young children, before the bones had acquired any degree of strength ; but this effect will, I believe, seldom if ever be produced at the time it would be advisable to apply them : we find that among all those distortions of the body that are caused by improper pressure, no alteration of the form of the bones has taken place, though the bones of the thorax are weaker.

weaker than those of the pelvis ; supposing it probable that the pressure of any machine should produce distortion of the pelvis, Vacher's machine would, from the method of applying it, have that effect, and do considerable mischief before it was discoverable ; but on the contrary, if the improved machine could have that effect, the distortion would be visible upon a superficial examination : the imperfections of Vacher's instrument are numerous, but this cannot be added to the number ; for though it has been applied in many cases, it has not been known to produce that effect in one ; and as the improved machine is even less liable to distort the pelvis than the other ; it is on that, as well as every other account, to be preferred to it.

On the different Methods of Treatment that are necessary to remove these Deformities under various Circumstances.

THESE deformities, like all diseases that are different in their causes, and from the circumstances of those who are afflicted with them, require that the methods of treating them should be varied to suit each particular case ; it is therefore impossible to suggest any method that will be so general as to be equally applicable to all cases ; but those who attempt to remove these deformities, and are not well acquainted with their origin, and effects, will frequently make use of improper methods, and do their patients the most serious injury.

THIS profession has been too generally followed by ignorant mechanics, or presuming quacks ;* these men are not acquainted with

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* I hope this will not be understood as a general censure upon the profession, it is well known that staymakers,

or capable of observing those minute circumstances that distinguish cases apparently the same, from each other: they know that machines are used to remove these deformities, they hear that some particular machine has been used with success, and therefore think themselves authorised to make use of it on every occasion, nor do they ever consider that it may be proper in some cases, but in others it may be misapplied, and consequently very prejudicial.

THE distinguishing circumstances of these cases are not to be easily described, a knowledge of them is only to be acquired by attentive observation, which the generality of those who undertake to cure them, think it too much trouble to acquire, they carry this contempt of acquired knowledge still further, I have

kers, ~~See~~ soldiers, ^{&c} have forced themselves into it and been countenanced till their conduct has proved their ignorance, and they have sunk into their original obscurity; these are certainly proper objects of censure.

have sometimes known them treat patients with a degree of impropriety, that seemed to have been studied to injure them; to prevent this at least, I will endeavour to describe the treatment necessary to patients at particular periods of life, observing at the same time, that many cases will require some variation of the treatment here laid down, but these only form particular exceptions, to what is meant to be a GENERAL RULE:

IN infants, or very young children, if the curvature is not from caries in the bone, the cold bath, strengthening medicines, and much exercise, are the only means to be used to remove the deformity, because if it is only the effect of weakness, those medicines will by strengthening the constitution prevent the farther increase of it; and as the distortion is seldom great, it will be considerably diminished if not entirely obliterated as the child acquires strength and increases in size; it is besides, impossible to use any other remedy at

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that period, as no machine is then to be recommended for many reasons, even if children of that age could bear them at all ; and if they do not out-grow the deformity, there will be sufficient time to eradicate it after the patient has acquired strength enough to bear the application of proper machines, and before they arrive at maturity.

For children under these circumstances, I should recommend a continuation of the same methods, without the use of any machine whatever, even till they have attained the age of eight or nine years ; because children whose constitutions are naturally weak, or who may have become so by improper treatment, may not have acquired strength to support the pressure of the proper machines ; even the probability of distorting the pelvis should be avoided, and we had better take the least expeditious method to remove the first deformity, than be in danger of incurring the second, particularly as the other methods may be successfully

cessfully exerted when there is not the least probability of danger, and every deformity be removed before the patient arrives at maturity.

BUT when a deformed person is farther advanced in life, it becomes of the utmost consequence to restore their shape as soon as possible; for if the least distortion remains when they arrive at maturity, it becomes fixed, and is from that period irremediable: to prevent this the patient should constantly wear the improved spinal machine; she should even sleep in it; particular attention should be paid to the manner in which she lies, and besides, she should frequently use the neck swing, which in this case will contribute to remove the deformity.

By proper attention, and perseverance in the use of these machines, we shall generally be enabled to remove every degree of deformity, and in a short time; or, if a cure should not be effected, the patient will at the worst,

be left in the same state she was in, before any attempt was made to remove the deformity; the remedy applied was suited to the nature of the disorder; want of effect was its only fault, the best remedies will sometimes fail, and we shall even then have the satisfaction to reflect, that having acted with propriety, and exerted all the power we were possessed of, to relieve the patient, we are not censurable for want of success: but when ignorant men have rashly undertaken what they are unable to perform, when they have used means that are calculated to increase, rather than remove the deformity, and when they see the bad consequences of those applications, they must not only regret the want of success, but if they have any feeling, they must retire, stung with reflecting that they have wantonly increased the misfortunes of human nature; and that through their mismanagement their patients have not only become worse, but have irrecoverably lost that time by listening to their promises, which if properly

properly employed, might have removed every deformity, and averted those evils that must be the consequence of them.

THOSE whose interest, or whose prejudices induce them to dissuade patients from using these instruments, have asserted, that they are painful to bear, and that it requires an uncommon share of fortitude to submit to them; others have objected to the disagreeable *appearance* of these machines; the former of these objections is groundless, the latter unavoidable; such a machine is necessary to remove the deformity, and a machine for this purpose cannot be constructed in an ornamental manner; therefore the patient's only alternative is, to bear with the disagreeable appearance of the machine as long as may be necessary to remove the deformity, or to let that remain, to find it continually increase till she arrives at maturity, and then to know that 'tis *irremediable*.

On the probable Advantages that will attend the Use of the improved Spinal Machine for that Curvature which accompanies the Paralysis of the lower Extremities.

THE cause of this curvature was till lately unknown; every method was tried to remedy it, but in vain; patients labouring under it were unwilling to despair, while a possibility of relief remained, they tried those machines that were used for distortion of the spine from other causes, but instead of relieving, this method generally exasperated all the symptoms, and hastened the dissolution of those who made use of them.

It is now near four years since Mr. Pott published some observations on this disorder, in which he recommends a mode of treatment which he had found in part successful; he has lately published some additional remarks which tend to confirm that success: the medical

dical world are obliged to Mr. Pott for the discovery, but patients afflicted with the disorder are much more so, as it seems to be a certain means of preserving them from a death that was otherways inevitable; but though much has been done towards curing this disorder, there is still room for considerable improvements; the above-mentioned gentleman, either satisfied with having done so much, or wishing that no more may be done for this disease, has rather too hastily said, that the deformity occasioned by it must always remain: it appears to me that this deformity may almost always be obliterated. I will state the reasons that induce me to think so; and as Mr. Pott is the only gentleman who has written upon the cause, as well as the effects and methods of treating the disease, I shall found the arguments in support of my opinion upon information collected from his works.

HE says, “ the primary and sole cause of
 “ all this mischief, is a distempered state of
 “ the parts composing, or in immediate con-
 “ nection with the spine, tending to, and
 “ most frequently, ending in a caries of the
 “ body, or bodies of one, or more of the ver-
 “ tebræ: from this period, all the ills whe-
 “ ther general, or local, apparent or con-
 “ cealed; this causes the ill health of the pa-
 “ tient, and, in time, the curvature. The
 “ helpless state of the limbs is only one con-
 “ sequence of several proceeding from the
 “ same cause; but tho’ this effect is a very
 “ frequent one, and always affects the limbs
 “ in nearly the same manner, yet the disease
 “ not having its origin in them, no applica-
 “ tion made to them only can be of any pos-
 “ sible use.”

AFTER describing his method of cure, he
 says, “ by means of these discharges the erod-
 “ ing caries is first checked, or then stopped;
 “ in consequence of which an incarnation
 “ takes

“ takes place, and the cartilages between the
 “ bodies of the vertebræ having been previ-
 “ ously destroyed, the bones become united
 “ with each other and form a kind of anchy-
 “ losis.

“ THE deformity remaining after recovery
 “ is subject to great uncertainty, and confi-
 “ derable variety, as it depends on the degree
 “ of caries, and the number of bones affected;
 “ in general it may be said, that where one
 “ vertebræ only is affected, and the patient
 “ young, the curve will in length of time,
 “ almost totally disappear; but where two or
 “ three vertebræ are affected this cannot be
 “ expected; the thing aimed at is the *conso-*
 “ *lidation and union* of the bones, which had
 “ been carious, and are now become sound:
 “ this is the *sine quâ non* of the cure, and
 “ this must in such cases render the curva-
 “ ture, and consequently the deformity *per-*
 “ *manent*; the issues will restore the use of

“ the limbs, but not the lost figure of the
 “ spine.”

It appears from this account of the disease that two operations are necessary to effect a *perfect* cure, one to extirpate the caries in the bones, and remove the cause of that caries from the constitution, which is effected by Mr. Pott's method; the other, which is to restore the spine to its original form, he says cannot be done, because it cannot be effected by the issues.

THIS is drawing a conclusion that is by no means warranted from the circumstances of the disease; we may be easily convinced that issues will not restore the lost figure of the spine; but as we know that a distortion of the spine, equally great, though from a different cause, is frequently cured, we must enquire why the same method that removes the distortion in the latter, should not also remove it

it in the former case, before we can allow Mr. Pott's conclusion to be just.

IN the one, the vertebræ are simply displaced from their natural and relative situation, and as soon as they are restored to that situation the cure is completed: in the other, they are displaced from that situation, because a part of one or more vertebræ is destroyed by the disease; therefore to effect a perfect cure, the spine must be extended, after the disease is eradicated, and kept in that situation 'till the loss of that part of the bone that has been destroyed by the disease is supplied by the formation of a callus; the spine will then have regained its strength, as well as its form, and no deformity will remain.

THERE is every reason to suppose that this would generally happen, if the proper steps were taken, and the patient would persevere in them and wait with patience for the event; Mr. Pott says, " the thing aimed at is the

“ *consolidation and union* of the bones which had
 “ been carious, and are now become sound :
 “ the progress of the eroding caries, is first
 “ checked, and then stopped ; in consequence
 “ of which an incarnation takes place, and
 “ the cartilages between the bodies of the
 “ vertebræ having been previously destroyed,
 “ the bones become united with each other
 “ and form a kind of anchylosis.

It may be asked, why these bones should
 be *consolidated* to be united, when they may
 be united without consolidation? the anchy-
 losis can only be effected by the formation of
 fresh matter, which is produced by an effort
 of nature to supply the loss of what has been
 destroyed by the disease ; this effort should
 rather be encouraged than obstructed ; by
 permitting the remaining bones to come in
 contact, a stop is put to the formation of fresh
 matter, the bones become firmly united, and
 the deformity of course is permanent.

ON the contrary, by keeping the remaining parts of the bones extended as near their natural situation as possible, nature has an opportunity to exert herself, a new ossification will take place and entirely supply the loss of what has been destroyed ; or if it does not supply the whole, it will a considerable part, and even then the deformity will be much less than it would be, if no such attempt had been made : it is well known, that in consequence of fractures of the extremities, a great quantity of new matter is formed to reunite the separated parts ; why therefore may not the same effect take place in the spine, under similar circumstances ?

As there are so many reasons to expect that the deformity would by this means be entirely eradicated, patients can only be dissuaded from making the attempt, by fear of the bad consequences of the machine, or by ill founded prejudice : no bad effect can be produced by this machine ; the objections
against

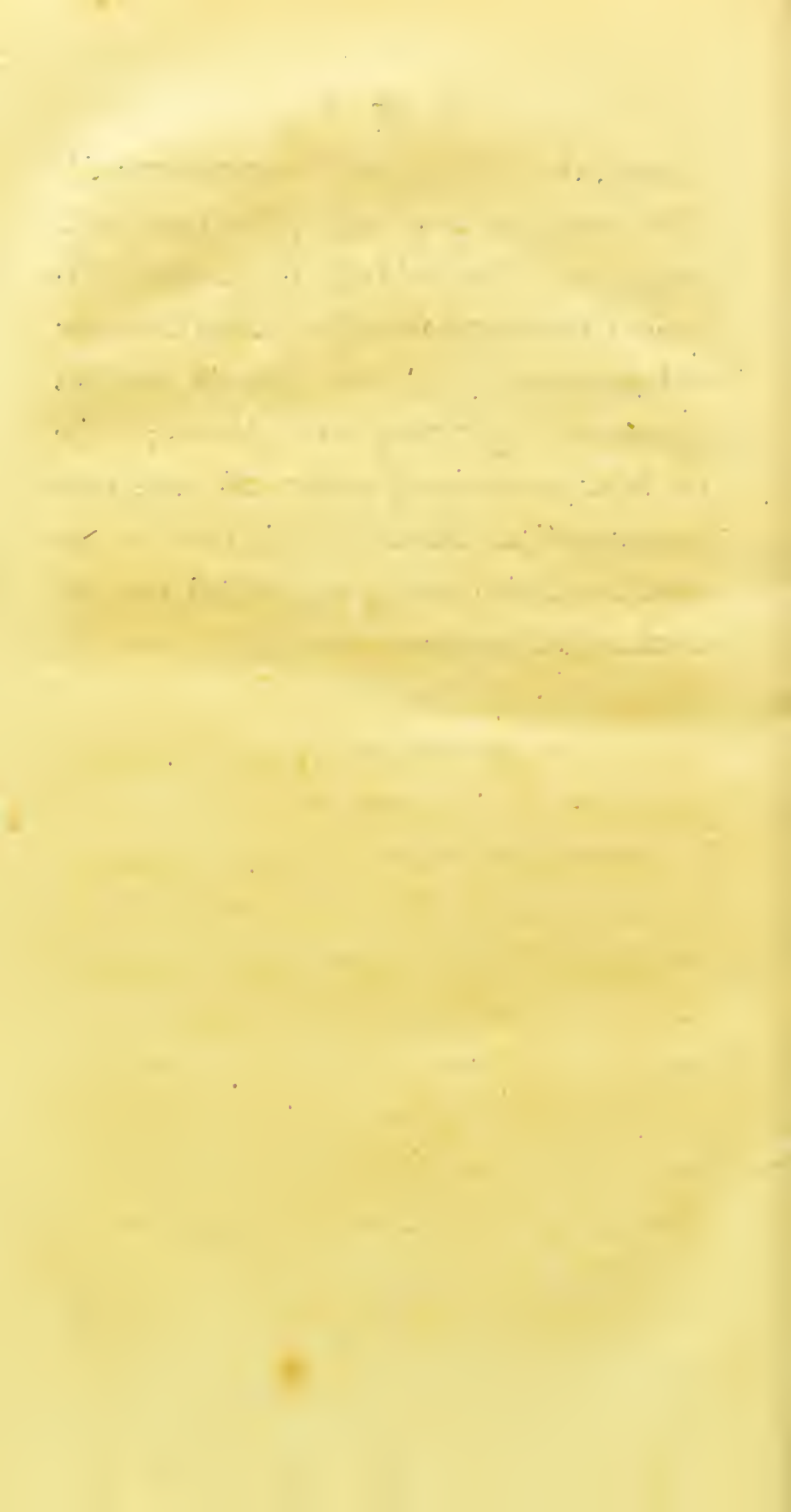
against the other machines do not effect this, because its method of action is different from theirs. When a patient is put into the swing, the weight of the whole body is laid upon the spine, ^{which is by these means} ~~that is~~ forcibly extended ; and, by this means, violent inflammation in the diseased parts takes place ; by persisting in the use of this machine I have seen a constant inflammation kept up ; a fever, and in a short time death was the consequence of this practice. The pressure unavoidable from the tight lacing of Vacher's stays, will produce the same effect, though perhaps in a less degree ; but no such consequence can be produced by the improved spinal machine ; it has no violent extension, no improper pressure ; when first put on it will prevent the spine from becoming worse, it will extend it so gradually that no inflammation will be occasioned, and as it lays the patient under no restraint, it may be worn with ease as long as may be necessary to effect a cure.

THE caries must have destroyed a considerable part of the vertebræ before the cure begins to be visible, and if not properly supported, will encrease till the cause of it is removed, and the remaining parts of the bones are consolidated and united.

WHEN patients are deprived of the use of their limbs by this disease, they must of course be confined to their beds 'till it is eradicated: but when that is effected, when the power of motion returns they must still be confined, or be in danger of increasing the curvature of the spine by the pressure of the superior parts, till the divided vertebræ, are *consolidated* and *united*; this alternative is disagreeable; the application of this machine in either of these stages of the disorder would effectually prevent the increase of the curvature, and as the patient might then take exercise without any danger, it would contribute to the more speedy recovery of his health.

As these observations are founded in reason, and on the nature of the parts concerned in the disease, as they are intended to explain some considerable improvements in the treatment of a very common disease, they are of consequence to many individuals, and I hope will be found to merit some attention; if they prove defective, I shall with pleasure see them corrected by men of more knowledge and experience; my desire is to improve a profession that is still very imperfect, and whether I do so myself, or afford others, who may be better qualified, materials to effect so desirable a purpose, is not of much consequence; I therefore leave them to the judgment of my readers: but should this essay strike at the root of the malpractices of those who are a disgrace to the profession, and be treated by them with scurrilous abuse, or should the man of real abilities affect to treat them with contempt, because they differ from his opinion, or did not originate under his inspection, I shall think them equally unworthy my attention;

tention ; their conduct will be equally unjustifiable, and they will only differ from each other, as Catiline did from the Emperor Tiberius ; the former wished to subvert the order and government of Rome, that he and his companions might revel in the plunder ; while the latter industriously persecuted those who endeavoured to become useful, even by the most honourable means, and wished that all merit might expire with himself.



S O M E
O B S E R V A T I O N S
O N T H E
T R E A T M E N T O F R U P T U R E S , &c.

THE situation of ruptured patients has always been peculiarly unfortunate ; afflicted with a disease that is in itself incurable, or that cannot at least, like most disorders, be remedied by art ; and at the same time always particularly desirous of obtaining a cure, they have been constantly the subjects of the most cruel operations, or the dupes of the most flagrant impostors.

THE love of health, and a desire to be free from disease, is natural to mankind : they have in almost every instance but this, placed the most implicit confidence in those who have made the cure of diseases their study ;

men of the greatest professional abilities have demonstrated the impossibility of curing this disease; the most ignorant of men have boasted of infallible remedies for it, *they* have obtained credit for a time, their impostures have been detected, they have returned to the charge, and always found fresh encouragement; in short, the credulity of patients in this situation can only be equalled by the assurance of those who have constantly marked them for their prey.

THE practices of some of these men became so notorious, as to render a full investigation of the subject necessary. Surgeons of the greatest abilities, and most established character, enquired into the nature of the disorder, and proved by anatomical demonstration, that they could not, with certainty, radically cure that disorder: such demonstration as this would have annihilated any other set of impostors; but the perseverance of a rupture quack is nearly insurmountable, they still con-
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tinue the substance, though they have altered the mode of their practice, for instead of boldly asserting impossibilities, they only insinuate that they can perform them: I shall, without going over the ground taken by others who have treated this subject, endeavour to collect such observations as will tend to shew the impracticability of curing ruptures by any other means than the use of proper trusses; and if I should in doing so, throw any additional light upon the subject, or be the means of rescuing a single patient from the hands of a set of men who are at once a disgrace to every profession and to humanity, I shall be pleased with reflecting that my time has not been employed in vain.

As every modern writer upon this subject, from Mr. Pott down to Mr. Brand, has been particular in describing the symptoms, situation, &c. of the various kinds of hernia, it will be needless for me to repeat what has been so often related, and is now so well understood.

derstood. A rupture, or hernia, is the unnatural protrusion of part of the abdominal viscera through an aperture made in some of the containing parts of the abdomen, occasioned by a partial relaxation in some cases, by violent exertions in others.

A RUPTURE is always dangerous, because it is continually increasing, and tho' not immediately painful or hazardous, it may instantly become so, unless a radical, or palliative cure is performed: the former is of the most consequence, and most to be wished for; let us therefore enquire first whether that is to be obtained, and by what means.

IN the infancy of surgery, a rupture was supposed to be as curable as any other disorder; various painful operations, which, as they are become obsolete it is needless to describe, were used to effect a radical cure, but always were unsuccessful: modern empirics have used medicinal applications for the same
pur-

purpose, and the experience of a century has proved these infallible remedies to be as ineffectual as the ancient operations; but as some still continue to assert their efficacy, and others give credit to those assertions, I will endeavour to shew why those applications have been, and always must be ineffectual: for this purpose, I shall confine myself to the inguinal and scrotal hernias, because they are the most common; and as the alteration produced in the parts concerned in every kind of hernia is similar, the same operations must take place to restore those parts to their natural situation, and cure every kind of hernia.

THE inguinal hernia descends from the cavity of the abdomen through an aperture in the tendon of the external oblique muscle designed for the passage of the spermatic vessels, in men, and the ligamenta uteri, in women; when it descends into the scrotum, it is called a scrotal hernia.

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WHEN a hernia of this kind is so small as only to occasion an apparent fulness in the part, or even if a small portion of its contents are without the abdomen, and not attended with pain, it may be, and I believe generally is, only occasioned by a relaxation of the parts: it is for this reason, that ruptures of this kind are so frequently cured in a few months by the general, or even the partial cold bath, and the use of a proper truss: but tho' this is generally the case, it does not always happen; I have sometimes seen such ruptures remain for many years, notwithstanding the utmost care was taken to remove them; therefore tho' every patient under these circumstances, has great reason to expect a cure, yet no particular one should be surpris'd if he forms an exception to the general rule.

WHEN the rupture has descended into the scrotum or labia, and is increased in size, a material alteration has taken place in other circumstances, which render the radical cure
more

more difficult, as well as uncertain : the spermatic vessels, and the ligamenta uteri are, when in their natural state, connected with the surrounding parts by a portion of cellular membrane ; the rupture descends in immediate contact with the spermatic vessels and ligamenta uteri, it divides them from the surrounding parts, and of course must lacerate the cellular membrane ; to effect, therefore, the radical cure of a rupture under these circumstances, the protuded parts must be returned into the abdomen, they must be retained there, and the parts that have been lacerated by its descent must be re-united.

NATURE, by the assistance of a proper bandage frequently effects this, but there is no artificial method of performing it ; there is no symptom by which we can tell if it is performed, without exposing the patient to additional danger, and therefore no man of character will undertake the radical cure of a rupture.

THE practice, as well as the opinion of every eminent man in the medical profession is in favour of this assertion ; but was I to leave it unsupported by argument, those whose interest might induce them to mislead their patients, would affect to treat it as an unfounded assertion ; I shall therefore produce what appear to be convincing reasons in support of it : after the rupture is returned, the desired re-union of the separated parts can only be effected by forming adhesions between them ; and adhesions can only be formed by exciting a degree of inflammation : if any external application therefore could cure a rupture, it must be by exciting a degree of inflammation ; if such applications were at all adviseable, it would be necessary to know the exact degree of inflammation requisite to have the desired effect, we should be certain of exciting neither more or less than the exact degree of inflammation necessary, and when this was done, we ought to know by some certain symptom whether the cure was effected or not : no man can answer

fewer for the effect of such applications with the necessary degree of exactness, there is no symptom by which we can tell if the cure is effected, unless the truss is taken away and the rupture does not return; and if the truss was taken away before the rupture was well, the patient must be exposed to additional risk; for these reasons, I think that no man who understands the nature of the disorder, who values his own character, or the health of his patient will attempt or promise to perform the radical cure of a rupture.

I do not think such an attempt would be adviseable, upon any occasion; I only mention this to shew, that if any thing for this purpose was to be recommended, it must be calculated to have the above-mentioned effect; but supposing, for the argument sake, that these people really believe they can cure a rupture, let us enquire how they have displayed their knowledge in preparing the applications they make use of.

THE pretended secrets of all the rupture quacks that have flourished within the last century are well known ; they have been copied from each other, and all consist principally of astringents ; it is therefore necessary to know whether astringent applications will have the above-mentioned effects : it appears to me that their effects must be very different, because they act like the cold bath, and contract all parts they are applied to into a less space than they occupied before ; if therefore they are applied to any part that has been lacerated, they, by contracting each collective body of muscular fibres into a lesser space, will bring those that are already in contact, nearer to each other, consequently increase the distance between those that are already separated ; and, for this reason, no astringent application can ever *cure a rupture*.

HAVING thus shewn the impracticability of curing a rupture by these methods, I may possibly be asked if a rupture is at all curable,
and

and by what methods it is so? to this I need not hesitate to answer, that if it can be returned into the abdomen, it may certainly be palliatively cured, and is frequently by the same methods, cured radically: this is an event, in itself so uncertain, that no man of knowledge or experience can give a positive opinion upon it; and as no ~~method~~^{means for this purpose} can be used with a ~~certainly~~^{probability} of success, patients should be satisfied if they are kept out of the reach of danger, and trust to nature for a radical cure: every one that has deviated from that line of conduct, and trusted to the promises of empirics has had, and all those who follow the same course will have more than one reason to repent it.

IF then we examine the difference between the radical, and the palliative cure of ruptures, we shall find the one to be a restoration of the natural power of retaining the viscera in the abdomen, without the assistance of a truss; and the other, the art of supplying the deficiency
of

of that power, by the use of a proper truss : after what has been said, patients will certainly give me credit, when I inform them that this is not only the opinion of all the faculty, but of that man who is, even by his own account, the most *extraordinary* rupturer of the present day.

THIS Gentleman has lately published a *a new and improved method of treatment and cure* : by which it appears, that he thinks the difference between the radical and palliative cure to be merely in the patient's mind ; to that therefore he applies his *new and improved method of treatment and cure*, which is simply this ; after reducing the rupture, he applies his trusses, pays a reasonable number of visits, tells the patient he is well, but must continue to wear his trusses, as a *prevention*,* and demands from fifty to an hundred guineas for

* The reader will determine whether this is to *prevent* the return of the disorder, or a discovery of the imposition.

his trouble, in proportion to the patient's circumstances : if they comply with the latter part of his advice, they are well of course ; but if they lay aside their trusses to ascertain the cure, they discover, that they, like Orpheus, have by one premature piece of curiosity destroyed a vision, which might have made them happy for life ; they find that their rupture descends as much as it did before the cure was accomplished.

IF patients will obstinately seek for demonstration of their illness, after paying fifty or one hundred guineas to be told they are well, they can only blame themselves for the disagreeable reflections such demonstration must occasion : nor is the author of this *new and improved method of treatment and cure* justly censurable, for wishing to conceal this disagreeable circumstance from them : if the practice of this *extraordinary surgeon* is so successful, as he asserts it to be, the ignorance of every modern writer upon this subject, is in-

excu-

excusable, for they say we can only be certain of effecting a palliative cure ; and for the same reason, the practice of those who pretend to reputation for their treatment of ruptures, is injurious to their own interest, as well as that of their patients ; ~~for~~ by adopting his method, they might not only radically cure every rupture in the kingdom, and be well paid for doing so, but at the same time secure a considerable income to themselves, by making trusses for all their patients, during the rest of their lives.

IF the patient is *radically* cured, of what use is the truss ? if he is not, why does this man pretend to cure him, and give advice which, if followed, will conceal the deception ? this conduct betrays the grossest ignorance, or the most fraudulent deceit : I leave this *extraordinary surgeon* to claim which of these qualities he pleases ; or if he can make good his pretensions to any other, by dint of reason and
argu-

argument, he shall likewise be extremely welcome to it.

HE possibly may not chuse to come upon this ground ; he may say that his method of curing ruptures is a *secret*, which he does not think proper to divulge ; and this argument may have some weight with those who place confidence in *charms* : but every other person will tell him, that all those who ever pretended to cure ruptures by charms, or secrets, have in the end been proved impostors ; that if a rupture is curable by other means than the simple application of a proper truss, that method can only be discovered by the most intense study, and greatest application : they will tell him, that a man capable of making such a discovery, must be possessed of talents far greater than those of all his contemporaries or predecessors ; such a man by demonstrating the principles at least, upon which his discovery was founded, would establish his own fame beyond the reach of any rival, or imitator ; and such conduct

would insure him an encrease of wealth, equal to the encrease of his reputation : this is a prospect which no man would forego, if he even dared to *think* he deserved it : but the man who is conscious that his secret is a trick, or whose trick is to persuade the world he is in possession of a secret, will shrink from the trial ; conscious of the weakness of his cause, he will decline giving the proofs, and refuse to shew even the foundation of its merit ; by this conduct, and by assuming an importance that he has not the shadow of a pretension to, he will prove in the clearest manner, that he is even *beneath contempt*.

THOUGH I am willing to give this gentleman credit for as much merit as he pretends to, I can by no means allow the justice of his pretensions to the *invention* of the *new and improved method of treatment and cure* ; it has been practised as long as any kind of quackery in rupture cases : those professions that may be called appendages to surgery, originated at the
same

same period, and approached towards perfection by the same degrees with that art: trusses therefore were till lately peculiarly imperfect, and patients who used them were liable to many inconveniences: in order to induce patients to submit to the various operations that were invented to perform the radical cure of ruptures, particular stress was laid upon the advantage of being without a truss; if they submitted to these operations, they were told, it was necessary to wear the truss till the parts were healed; after they were healed, till they acquired strength; and if at last the patients laid their trusses aside and their ruptures returned, they were informed it was only because they had laid them aside too soon: it is needless to remark the resemblance between this conduct and our *extraordinary surgeon's* advice to his patients, viz. to wear trusses constantly, after the radical cure is performed, by way of *prevention*.

If patients should be convinced that a proper truss is the only remedy that can be obtained for the radical, or palliative cure of a rupture, they may naturally ask what constitutes, and where proper trusses are to be procured? A proper truss is an instrument that will both effectually keep the contents of the rupture, when returned, in their natural situation, and with most ease to the patient; it must be made suitable to the peculiarities of every patient's case, and therefore as no two cases are exactly the same, those instruments must necessarily be different from each other; as the principles upon which these instruments are made, are now well known, and as any man who will pay proper attention to acquire a knowledge of the disorder, can make them with propriety, it is probable that many men may be found, who are capable of making and *applying proper trusses*,

It may be said there are patent elastic trusses, and that these must, on that account, be

be different from, and better than those made by other people ; this is certainly possible, but by no means true.

- I HAVE said that the trusses formerly used, were inconvenient and dangerous : when some men of real knowledge had proved, to a demonstration, that the only method of curing the disorder, was by means of those bandages ; others endeavoured to improve them, and make them as easy and agreeable to the patient as possible : I have now in my possession a pamphlet written by Mr. Blakey, who was really the inventor of the *elastic* bandages for ruptures, in which he places the date of that invention in the year 1733 : he lived some years in France, but afterwards settled in London, where he made his invention public ; its superiority was so evident that it was brought into general use, and has been almost universally practiced ever since.

SEVERAL years after that time, a man sprung from the dregs of the people, and destitute of principle and character, forced himself into the profession; not contented with a tolerable degree of success, he formed a design to engross the whole business to himself; he pretended to be the inventor of elastic trusses, took out a patent, and prosecuted several truss makers for pirating what he called his invention; on the trial of one of those causes, the facts above-mentioned were fully proved, and by a verdict of the court of King's Bench his *invention* was declared to be an imposition.

THIS transaction was as public as any decision of that court could be, but notwithstanding the notoriety of that imposition, the son of this man has lately published a pamphlet, in which he insinuates the great superiority of his *patent elastic trusses* but has not attempted to prove that *he* had obtained a patent, after his *father's* was declared to be an imposition; or endeavoured to shew that his trusses are different

ferent from those made by his father, or any other of the profession: the motive of his silence upon this head, it is needless to point out; the justice of his pretensions is well known; but if any thing can confirm the opinion generally entertained of his merit, it must be that of his own father; even his father, who, it is reasonable to suppose, was best acquainted with his abilities, as well as partial to the merit of an only son, calls him the *most impudent of triflers*, and says, *he is above meanly filching a reputation; but with a most becoming boldness snatches at it, even when it is out of sight*. See the Rupture Curers Displayed, p. 22.

THE particular actions of one of these men, are nearly consigned to oblivion; the other is too contemptible for notice; I should never have troubled myself with either, or forced them upon my readers attention for a moment, if the latter had not attempted to revive an imposture that had been so fully detected; not by endeavouring to prove *its* merit, but by
 infi-

insinuating his own; and charging all the rest of the profession with ignorance and presumption: in this attempt he has failed; he has only *asserted* the ignorance and presumption of the rest of the profession, but he has given *convincing proofs of his own*: however, from his want of success on this, and his conduct on every other occasion, he will derive a reflection, that must always afford satisfaction to a man of his *honour* and *sensibility*: he will consider, that he has justified the opinion his father entertained of him, and reflect with pleasure, that like a dutiful son, he has uniformly exerted himself through life to prove, that tho' his progenitor's veracity was not always to be depended upon, he undoubtedly spoke the truth,—at least once in his life.

As the utility of these bandages becomes more generally known, it is probable that ingenious men may still make considerable improvements in them; but whatever those improvements may be, they will be capable of
demon-

stration, and the makers of them will be willing, as well as capable of explaining the nature of them, as, by that conduct only, they can establish their reputation upon a lasting foundation : men of a different description will be equally desirous of fame and profit, though less scrupulous in their methods of obtaining them ; and, after the numerous frauds that have been practised upon ruptured patients, and so repeatedly detected, prudence would prompt every person in that situation, to give no man credit for more merit in this profession, than he can demonstrate the justice of his pretensions to ; since it has been fully proved, that even a patent may be procured by them, to support an imposition.

As the opinions of all the faculty, as well as the most eminent men, who have made this disorder the object of their particular study, have not convinced patients in general, of the impracticability of curing ruptures by any other means than the use of proper trusses, it would

be the greatest presumption in me, to suppose that I could effect so desirable a purpose; as, however, it would be of essential service to a very numerous part of mankind, if it could be effected, I think myself justifiable in making the attempt, and can only regret the want of power to insure success: those who are not to be convinced by arguments, will seek for experience; they will confide in the promises of men who assert their abilities to cure the disorder; and after having lost their time, their money, injuring their health, and probably endangering their lives, they will be convinced of the fallacy of such promises; they will find themselves under the necessity of returning to the simplest, to the only remedy; and they will join with the faculty, and those patients who have been as credulous as themselves, in asserting that every professed rupture curer, is a flagrant impostor.

A D V E R T I S E M E N T.

SINCE the preceding Observations were printed, the author has had some opportunities of trying some elastic trusses made upon an improved construction; he intended to add some observations to prove their superior utility; but as his leisure would not permit him to prepare them immediately for the press, that would have delayed the publication for some time; for this reason he has published it without them. This, however, will be no additional expence to the purchasers of this Essay, who may receive them by applying to the different booksellers when they are printed, which will probably be in three weeks or a month at farthest.

No. 84,
St. Martin's Lane.

workupsets Plaster in ear by Stages of Since Joint, the
 White Swelling (P. 90) excites a slight sensation
 of Heat, which is seldom so great as to feel Dis-
 agreeable, & there is scarcely any Superficial Re-
 dness, or Discharge produced. [Askins Ann. Med.]
 1803

E R R A T A.

- Page 1. *For*, nothing would be more easily prevented, *read*,
 they might in general be easily prevented.
4. *For*, Mr. Pott first published an account of the cause
 of that disorder, and a method of treating it, *read*,
 a successful method of treating it.
7. *For*, pressure in some of the bones of the thorax, *read*,
 on some of the bones, &c.
15. *For*, they have no motion independent of those verte-
 bræ, and they are exactly parallel to each other,
 while the spine is in its natural situation, *read*, they
 are so dependent upon the vertebræ they are attached
 to, that they will seldom be forced out of this natural
 situation but in consequence of an alteration in the
 figure of the spine; while that is strait they are ex-
 actly parallel to each other; this, &c.
- Ibid.* *For*, Monf. Vacher, *read*, Monf. Le Vacher.
39. *Note. For*, staymakers, &c. soldiers have, *read*, stay-
 makers, soldiers, &c. have
53. *For*, effort, *read*, effect.
54. *For*, laid upon the spine, that is forcibly extended,
read, laid upon the spine, which is by this means
 forcibly extended.
69. *For*, as no method can be used with a certainty of
 success, *read*, as no means can be used for this pur-
 pose with a probability of success.
72. *Line 6, instead of*, as by adopting, *read*, for by adopt-
 ing.
- 80, *Line 7, for*, in this, *read*, on this, &c.

